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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,167	08/30/2001	Ulrich C. Boettiger	108298543US	1582
25096	7590	03/10/2004	EXAMINER	
PERKINS COIE LLP			ESPLIN, DAVID B	
PATENT-SEA			ART UNIT	
P.O. BOX 1247			PAPER NUMBER	
SEATTLE, WA 98111-1247			2851	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/945,167

Applicant(s)

BOETTIGER ET AL.

Examiner

D. Ben Esplin

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31,46-76 and 85-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-31,62-76 and 85-96 is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11-13,17-20,46,47,50-52,54-56,60 and 61 is/are rejected.
- 7) ☒ Claim(s) 2,3,10,14-16,48,49,53 and 57-59 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 462, 1162, 1263
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-9, 11-13, 17-20, 46, 47, 50-52, 54-56, 60, and 61 are rejected under 35

U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,721,608 Taniguchi (Taniguchi).

FIG. 1 of Taniguchi shows an apparatus including a radiation source (light source 1), a reticle (reticle R) coupled to an actuator (reticle stage RST) to move the reticle perpendicular to a radiation path (optical axis IX), and a substrate support (wafer stage WST) positioned to support a microlithographic substrate (wafer W). The support moving along a substrate support path including a first component generally parallel to the radiation path (col. 5 lines 49-53), and a second component generally perpendicular to the radiation path (col. 5 lines 53-56). Further, Taniguchi teaches that the radiation source may be an ArF or KrF excimer laser (col. 4 lines 34-35) that would inherently emit light with a wavelength of less than 365 nanometers.

Response to Arguments

Applicant's arguments filed 2/2/04 have been fully considered but they are not persuasive.

Applicant argues that the movement of a microlithographic substrate parallel to a substrate radiation path shown in Taniguchi is for focusing purposes only, and therefore does not create a substrate path that moves the substrate both parallel and perpendicular to the substrate radiation path in a manner correlated with the motion of a reticle. This is not persuasive because the focus position of the substrate in Taniguchi is directly linked to the position of the reticle. The reason that the substrate in Taniguchi is moved parallel to the substrate radiation path is to correct for substrate surface anomalies such that the portion of the surface of the substrate being exposed is always positioned at the proper distance from the reticle. The substrate is scanned perpendicular to the substrate radiation path at a speed directly related to the speed at which the reticle travels along the reticle path. Thus, the portion of the substrate that is being exposed is linked to the movement of the reticle along the reticle path, making the adjustment of the substrate parallel to the substrate radiation path to adjust for the abnormalities of a particular portion of the substrate surface correlated to the particular position of the reticle as it moves along the reticle path.

Further, Applicant has previously argued that the instant claimed invention is patentable over Taniguchi because Taniguchi does not explicitly teach of moving the substrate concurrently parallel and perpendicular to the substrate radiation path (see Interview Summary mailed 2/13/04). Examiner has contended that since Taniguchi describes a scanning type exposure, focus correction inherently implies correcting the focus position of the substrate parallel to the substrate radiation path while the substrate is moved perpendicular to the substrate radiation path for exposure. To support this position Examiner directs Applicant's attention to U.S. Patent No. 6,084,244 to Saiki et al. (Saiki), which teaches that focus correction for a scanning exposure was

Art Unit: 2851

implicitly understood to include adjusting the focus position concurrent with scanning (col. 4 lines 27-38).

Allowable Subject Matter

Claims 21-31, 62-76, and 85-96 are allowed.

Claims 2, 3, 10, 14-16, 48, 49, 53, and 57-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Art Unit: 2851

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Ben Esplin whose telephone number is (571) 272-2117. The examiner can normally be reached on Mon.-Fri. (8am-4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell E. Adams can be reached on (571) 272-2112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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